

WCPCG 2014

## The Effectiveness of Creating Hope on Distress of Women with Breast Cancer

Farah Lotfi Kashani<sup>a\*</sup>, Shahram Vaziri<sup>b</sup>, Mohammad Esmaeil Akbari<sup>c</sup>, Niloufar Zeinolabedini<sup>d</sup>, Haleh Sanaei<sup>e</sup>, Zahra Jamshidifar<sup>f</sup>

<sup>a</sup> Cancer Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran., Dept of Clin. Psy. Islamic Azad University, Roudehen branch, Roudehen Iran

<sup>b</sup> Department of Clin. Psy. Islamic Azad University Roudehen branch, Roudehen Iran

<sup>c</sup> Cancer Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

<sup>d</sup> Department of Clin. Psy. Islamic Azad University Roudehen branch, Roudehen Iran

<sup>e</sup> Imam Khomeini International University of Ghazvin

<sup>f</sup> Islamic Azad University, Science and Research Branch of Kerman

---

### Abstract

The purpose of this study was to investigate the effect of creating hope in distress of women with breast cancer. For this purpose 18 women who were diagnosed with breast cancer at Shohaday-e Tajrish hospital affiliated to Shahid Beheshti University of Medical Sciences were chosen from available samples and were divided into two groups of experimental and control. The experimental group underwent 8 sessions of intervention based on creating of hope and expectation of treatment in duration of 90 minutes. Analysis of covariance showed that creating hope and expectation of treatment was effective in reducing the distress of patients suffering from breast cancer. One month follow up showed that this reduced level of distress in the mothers remains sustained until follow-up.

© 2014 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Peer-review under responsibility of the Academic World Education and Research Center.

**Keywords:** hope-therapy, distress, breast cancer

---

---

\* Farah Lotfi Kashani. Tel.: +98-21-22748001-2  
E-mail address: [lotfikashani@riau.ac.ir](mailto:lotfikashani@riau.ac.ir)

## 1. Introduction

Cancer has known to be one of the most difficult diseases which have both mental and physical effect on the patient and their families. Despite medical advances, cancer is still synonymous with death, pain and suffering (Powe, finnie, 2003). The changes and pressures of this disease have different effects on one's life and his family. Cancer and treatment of this malignity is associated with side effects and numerous complications, maybe we can introduce pain and mental distress as one of the most common complications (Butler, koopman, Cordova and Garlan, 2003). At least half of women suffering from breast cancer have mentioned that they have experienced distress (kombliith, Ligibel, (2003). Midtgard, Roth and Steler, (2005) believe that when people are suffering from life-threatening disease like cancer, they show a high level of mental distress which can lead to symptoms of depression and anxiety. Findings of some researchers, including Dreogatis (1993); Zabora, Brintzenhofzoc, Curbow, Hooker and Piantodosi, (2001) show that the prevalence of psychological problems is striking in cancer patients. Studies show that during start of diagnose up to treatment, the probability of distress occurring is 35% to 45 % (Zabora et al, 2001; Carlson, Angen, cloumetal, 2004; Carlson, Bultz, 2003). This statistic was reported 58% (Potash, Briebart, 2002) and also 78% (Baltz & Carlson, 2006). It seems psychological mediators can have a significant role in treatment of cancer and their consequences (Vaziri, Lotfi, Mousavi, Akbari, 2010). Studies show that therapy can increase the survival rate of cancer patients (Fawzy, Fawzy, Hyun et al, 1993); Spiegel, Bloom, Kramer & Gottheil, 1989) and hope therapy has a large effect (Raliegh, 1992). A lot of research has been done on the role of hope on the treatment of cancer. This chance or bias of researchers is due to engaging to some form of psychotherapy which addresses hope as the main objective which will be important for cancer patients and their relatives. According to a study done by Lotfi Kashani (1998) factors affecting the psychotherapeutic approaches can be summarized in four factors, Therapeutic relationship, creating hope and expectancy, awareness increasing and behavior regulation. The four factors above provide a systematic psychotherapy which is not specified for a particular approach. During this process in therapeutic relationship and implementing the principles of learning and regulation of behavior the basis for creating hope and expectation of treatment and an increase in patient's awareness is provided which results in recovery of the patient. The process of recovery and healing through these four factors indicates that a good therapeutic relationship provides a proper opportunity for the client to become aware of the feelings and behaviors that were not previously noticed. The client gets a new insight into current situation and becomes more aware of his feelings and achievements, which in turn become part of treatment. In this process with creating hope and expectation of healing as a big part of treatment, the spirit of the patient lightens up, finally changes in the patient's behavior becomes possible and basis for healing is provided through regulation of his responses. Studies show that 12% of why a patient is healed is due to therapeutic relationship (Horvath & Bedi, 2002). More than one third of success can be related to effectiveness of treatment by the therapist and the patient (hope and expectation of healing) (Roberts, Kewman, Mercier & Hovell, 1993). Creating hope and expectation of treatment is a positive cognitive-motivational state resulting from the interaction of driven thinking or the power of willpower or trajectory thinking or ability of routing or planning for reaching a goal (Snyder, 2000). Scheiere & Carver (2000), showed that those cancer patients who are more hopeful respond to treatment much better. If we define hope as an ability of trajectory design towards the desired objective despite the existing obstacles and mediators or define it as a necessary incentive factor for using these trajectories, our question is: Does creating hope and expectation of treatment is effective in reducing the distress of patients suffering from breast cancer?

## 2. Method

This study which is a quasi-experiment design was performed with pre-test and post-test, control and a follow up. The statistical population of this study included women with breast cancer who were admitted to Shohaday-e Tajrish hospital affiliated to Shahid Beheshti University of Medical Sciences. From these patients 18 patients aged between 18-65 who had education higher than guidance school were chosen from available samples and they were randomly assigned into two groups of experimental and control. The experimental group underwent an 8 session intervention of creating hope and expectation of treatment in duration of 90 minutes but the control group did not undergo any hope based intervention. The distress levels of both groups (the experimental and control) before and after the treatment and in one month follow up after the intervention was evaluated with Vaziri Subjective Unite Scale of Mental Distress (VSUD).

Vaziri Subjective Unit Scale of Mental Distress (VSUD): is a self-assessment scale that the intensity of comfort and distress is graded with it. This scale consists of 6 items in which the distress of people is graded from zero (Completely False) to four (completely true). Vaziri scale of subjective unit of distress has been designed in a way that respondent's perception is evaluated by extent of nervousness, hopelessness, being restless and irritable, being sprightly, worthlessness of actions, distress and bewilderment. The reliability coefficient of the scale in a group of 207 cancer patients, using method of Cronbach alpha 0.86 and with the method of retest in intervals of two weeks was reported 0.91. The high correlation of the grade scores of this scale with K10 and GHQ28 represents the defensible validation of this scale (Vaziri, 2014). The general design of creating hope and expectation of treatment was performed using an 8 session of training 4 factor elicitation approach in interval of one day a week in duration of 90 minutes. For data analysis the statistical method of covariance was used. The data was analyzed using eighth edition of SPSS software.

### 3. Findings

Table 1 describes the components' age, education, length of marriage are presented in separate groups.

Table 1. The demographic properties of samples

		n	M	variable	
Age	Experimental	9	49.10	Married	experimental 8
	Control	9	47.54		control 8
Education	Junior high school	7		Single	experimental 1
	High school and diploma	10			control -
	MA	1			

In table 2 the descriptive component of distressed subjects in the experimental group and the control group are presented separately in form of pre-test and post-test.

Table 2. The descriptive statistics of distressed score

		experimental		control	
		M	sd	M	sd
Distress	Pre - test	18.89	1.269	18	1.118
	Post - test	15.89	1.167	18.44	1.590
	Follow up	15.56	1.810	18.44	1.5

To investigate the effectiveness of creating hope and expectation of treatment to reduce distress in women with breast cancer, a necessary prerequisite for the analysis of covariance was studied. At first the interaction between pre-test scores (the auxiliary random variable) and post-test scores which was the result of independent variable actions was investigated. Considering the F which is the result of interaction between pre-test and group 1.610 is not significant in the level of 0.50. It can be said that the data support hypothesis of homogeneity of regression slope. What more is the equality of variance of dependent variable was calculated through Levene's test. Noting that the significance level of Levene's test is more than 0.05, the data has not questioned the hypothesis of equality of variances errors ( $F=0.170$   $df=1$  &  $16$ ,  $P=0.686$ ). As a result the conditions for covariance analysis are established in Table 3.

Table 3. Summary of ANCOVA for investigating the groups effects on the variable of distress

Source	SS	df	MS	F	Sig.	Partial Eta
Pre Test	6.175	1	6.175	3.725	.073	.198
group	28.008	1	28.008	16.848	.001	.529
error	24.936	15	1.662			

As it can be seen in table above, the probability of accepting the null hypothesis for comparing the experiment and control group at post-test distress is less than 0.50. In other words after the adjustment of pre-test scores the interaction between subjects of the groups in post-test distress variable there is a significant difference ( $F=16.848$   $P=0.001$  &  $\text{Partial Eta}=0.529$ ). Given the evidence in hand, we can conclude that the intervention done

on the reduction of distress was effective. To investigate the endurance of the effectiveness of creating hope and expectation of treatment, we compared the scores of the second phase of distress in experiment group to their scores in one month follow up. Table 4 shows a summary of this comparison. As it can be seen, the probability of accepting the null hypothesis for both the experiment and control groups at post-test the distress is higher than 0.05. In another words, after adjusting the pre-test scores, the interaction between subject of groups in post-test of distress variable, has no significant difference ( $F=1.174$ ,  $P=0.147$ ). Given the evidence, it can be concluded that the distress scores of the experiment group in a one month follow up had no significant difference. This means the changes resulting from creating hope and expectation of treatment has remained stable in a one month follow up.

Table 4. Summary of ANOVA on the score change of distress in the control group and in the follow-up study

	SS	df	MS	F	Sig.
Between Groups	5.565	1	5.556	2.326	.147
Within Groups	38.222	16	2.389		
total	43.778	17			

#### 4. Discussion and conclusion

This study aimed to determine the effectiveness of creating hope and expectation of treatment in reduction of distress in women with breast cancer. For this purpose, a quasi-experimental study in which 18 patients were chosen from available samples who were admitted to Shohday-e Tajrish hospital of Shahid Beheshti University of Medical Sciences and they were divided into two groups of experimental and control. The experimental group underwent an 8 session of intervention of hope and expectation of treatment based on four factor theory, each session lasting 90 minutes. The control group did not undergo any hope based intervention. Distress levels of patients in both experiment and control group before, after and in one month follow up of completion of treatment was evaluate by Vaziri Subjective Unit of Mental Distress (VSUD).The result of covariance analysis showed that creation of hope and expectation of treatment are effective on the reduction of distress on women suffering from breast cancer. In one month follow up after the completion of intervention sessions there was no significant change and the treatment achievements remained stable. The result obtained was in line with Feuz, 2012; Berendes, Keefe, et al, 2010; Cheavens, Feldman, Woodward and Snyder, 2006; Scheier, Carver, 2001) studies. For example Feuz (2012) found out in his studies that hope as an effective strategy, is influential in dealing with a difficult disease. Berendes, et al, (2010) found out that hope has a positive significant correlation with the reduction of distress and disease syndrome in patients suffering from breast cancer. Cheavens, et al, 2006 found out in their studies that hope has an influential effect on training rehabilitation for patients. Scheier and Carver (2001) also showed that the patients who are more hopeful response better to cancer and its treatments. Other studies (Mzclement & Chochinov, 2008; Taylor, 2000; Irving, Snyder & Crowson, 1998; Irving, et al, 1997) are the confirmation of the current findings. It seems that patients suffering from breast cancer suffer from distress, stress and anxiety both through and after the treatment; this causes them to lose their life expectancies. The emphasis on creating hope and expectation of treatment in aim of striking hope in patients with breast cancer has resulted in reduction of distress, re - description of future, having meaningful life, increase of tranquility and energy in them. On the other hand the hopeful people instead of concentrating on the adverse events learn from it and start using them in a follow up of future objectives. As a result they have more commitment towards their mental health, satisfaction of life and higher adaptation when confronted with adverse events and start seeking several sources of support and therefore, they suffer less mental suffering.

#### References

- Berendes, D., Keefe, F.J., Somers, T., Kothadia, S.M., Porter, L.S., Cheavens, J. (2010). Hope in the context of lung cancer: relationships of hope to symptoms and psychological distress. *Journal of Pain and Symptom Manage.* 40(2), 174-182.
- Bultz, B.D. & Carlson, L.E. (2006). Emotional Distress: The sixth vital sign – future directions in cancer care. *Psycho-Oncology*, 15, 93-96.

- Butler, L., Koopman, C., Cordova, M.J., Garlan, R.W. (2003). Psychological distress and pain significantly increase before death in metastatic breast cancer patients. *Psychosomatic Medicine*, 5, 416-26.
- Carlson, L.E., Bultz, B.D. (2003). Cancer distress screening: Needs, methods and models. *J Psychosom Res*, 55, 403–409.
- Cheavens, J. S., Feldman, D. B., Woodward, J. T., & Snyder, C. R. (2006). Hope in cognitive psychotherapies: On working with client strengths. *Journal of Cognitive Psychotherapy*, 20, 135-145.
- Derogatis, L.R. (1993). The prevalence of psychiatric disorders among cancer patients. *Journal of the American Medical Association*, 249, 751-757.
- Fawzy, F. I., Fawzy, N. W., Hyun, C. S., Elashoff, R., Guthrie, D., Fahey, J. L., et al. (1993). Malignant melanoma: Effects of an early structured psychiatric intervention, coping, and affective state on recurrence and survival 6 years later. *Archives of General Psychiatry*, 50, 681– 689.
- Feuz, C. (2012). Hoping for the best while preparing for the worst. *Journal of Medical Imaging and Radiation Sciences*. 43(3), 168-174.
- Horvath, A. O., & Bedi, R. P. (2002). The therapeutic alliance. In J. C. Norcross (Ed.), *Psychotherapy relationships that work: Therapist relational contributions to effective psychotherapy* (pp. 37–69). New York: Oxford University Press.
- Irving, L., Snyder, C.R., Gravel, L., Hanke, J., Hilberg, P., & Nelson, N. (1997, April). *Hope and effectiveness of a pre-therapy orientation group for community mental health center clients*. Paper presented at the annual meeting of the Western Psychological Association Convention, Seattle, WA.
- Irving, L.M., Snyder, C.R., & Crowson, J.J., Jr., (1998). Hope and the negotiation of cancer facts by college women. *Journal of Personality*, 66, 195–214.
- Kornblith, A.B., Ligibel, J. (2003). Psychosocial and sexual functioning of survivors of breast cancer. *Semin Oncol*, 30, 700-813.
- McClement, S.E., Chochinov, H. (2008). Hope in advanced cancer patients. *European Journal of Cancer*, 1169-1174.
- Midtgard, J., Rorth, M., Stelter, R. (2005). The impact of a multidimensional exercise program on self-reported anxiety and depression in cancer patients undergoing chemotherapy: A phase II study. *Palliative and Supportive care*, 3, 197-208.
- Potash, M., Breitbart, W., (2002). Affective disorders in advanced cancer. *Hematol Oncol Clin North Am*, 16(3), 671–700.
- Powe, B.D., Finnie, R. (2003). Cancer fatalism: The state of the science. *Cancer Nurs*, 26(6), 454–465.
- Raleigh, E. (1992). Sources of hope in chronic illness. *Oncology Nursing Forum*, 19(3), 443-448.
- Roberts, A.H., Kewman, D.G., Mercier, L. & Hovell, H. 1993. The power of nonspecific effects in healing: implications for psychosocial and biological treatments. *Clinical Psychology Review* 13: 375.
- Scheier, M.F., & Carver, C.S. (2001). Adapting to cancer: The importance of hope and purpose. In A. Baum & B.L. Andersen (Eds.), *Psychological interventions for cancer* (pp. 15-36). Washington, DC: American Psychology Association.
- Snyder, C.R. (2000). The past and the future of hope. *Journal of Social and Clinical Psychology*, 19, 11–28.
- Spiegel, D., Bloom, J.R., Kramer, H.C., & Gotthel, E. (1989). Effect of treatment on the survival of patients with metastatic breast cancer. *Lancet*, 2, 888 – 891.
- Taylor, J.D. (2000). Confronting breast cancer: Hopes for health. In C. R. Snyder (Ed.), *Handbook of hope: Theory, measures, and applications* (pp. 355-371). San Diego, CA: Academic Press.
- Vaziri, sh. (2014). Brief report: The Vaziri Subjective Units of Distress Questionnaire (VSUD): Validation in Iranian College Students. *Journal of ICP*. In print
- Zabora, J., Brintzenhofesoc, K., Curbow, B., Hooker, C., & Piantadosi, S. (2001). The prevalence of psychological distress by cancer site. *Psycho-Oncology*, 10, 19-28.